California Regional Water Quality Control Board
North Coast Region

CLEANUP AND ABATEMENT ORDER NO. R1-2001-0201
(REVISING ORDER NO. R1-2001-52)

FOR

JACKSON FAMILY ESTATES I, LLC

Sonoma County

The California Regional Water Quality Control Board, North Coast Region, (hereinafter Regional Water Board), finds that:

1. On June 12, 2001 the Department of Justice, Bureau of Narcotics, identified and seized a clandestine drug manufacturing operation located at 3739 Piner Road, Santa Rosa, California.

2. The property is a 16.91-acre parcel located in an agricultural setting. The property consists of a single family home, three outbuildings, a barn, and surrounding vineyard. Water at the property is supplied by an onsite domestic well. A concrete ring well, located northwest of the house, is approximately three feet in diameter and 15 feet deep. The depth to groundwater is approximately 10 feet below ground surface.

3. The tenant, who allegedly operated the drug lab, was an employee of Jackson Family Estates I, LLC. The clandestine drug manufacturing operation was located in the outbuilding northwest of the house. Wastes, including but not limited to aliphatic hydrocarbons, aromatic hydrocarbons, corrosive liquids and solids, metals, iodine, phosphorus, generated as part of the manufacturing operation were discharged directly to groundwater through the concrete ring well located adjacent to the outbuilding, and continue to migrate into and through the groundwater.

4. Jackson Family Estates I, LLC owns the property located at 3739 Piner Road in Santa Rosa, California (A.P. # 057-030-022). Jackson Family Estates I, LLC, the owner of the property, is hereinafter referred to as the discharger.

5. On June 13, 2001 the Executive Officer issued Cleanup and Abatement Order No. R1-2001-52. The Order required the discharger to conduct a soil and groundwater investigation. The work required in the Order occurred, and additional work is necessary to determine the full extent of contamination.

6. On June 13, 2001 groundwater samples from the concrete ring well were collected for analytical testing. The analytical results of the samples collected show the presence of an unknown total petroleum hydrocarbon (TPH) (later identified as "Coleman Fuel") at a concentration of 540,000,000 parts per billion (ppb), benzene at 170,000 ppb, toluene at 800,000 ppb, xylenes at 150,000 ppb, iodide at 4,600,000 ppb, chloride at 580,000 ppb, and phosphorus at 320,000 ppb. The pH of the sample was 9.86. Tentatively Identified Compounds (TICs) were detected at a maximum concentration of 25,000,000 ppb.

7. On June 13, 2001 approximately 300 gallons of liquid were pumped out of the concrete ring well.

8. Groundwater samples have been collected from nine neighboring domestic wells, including the onsite domestic well. Background concentrations of phosphorus and chloride were detected in all samples. No other chemicals associated with the clandestine drug manufacturing operation were found in the domestic wells.

9. On June 25, 2001 a site investigation work plan was submitted by consultant Harding ESE on behalf of the Jackson Family Estates I, LLC. On June 26, 2001, Regional Water Board staff concurred with the work plan.

10. On June 28 and 29, 2001 the site investigation work plan was implemented. Discrete soil and groundwater samples were collected for analytical testing. Results of the groundwater samples collected were reported as follows (highest detections shown):

Constituent or Compound	Analytical Results
Coleman Fuel	1,900 ppb
Benzene	35 ppb
Toluene	61 ppb
M,p-xylene	6.0 ppb
Phosphorus	8,000 ppb
Iodide	230,000 ppb
Chloride	41,000 ppb
Tentatively Identified Compounds (TICs)	400 ppb

The results of the soil samples collected were reported as follows (highest detections shown):

Constituent	Analytical Results
Phosphorus	350 ppm
Chloride	9.5 ppm
Iodide	31 ppm

11. In addition, samples from the onsite septic system were collected for analytical testing. The results of the samples collected show the presence of TPH as gasoline at 600 ppb and toluene at 340 ppb.

12. The Discharger has caused or permitted, cause or permit, or threaten to cause or permit waste to be discharged or deposited where it is, or probably will be, discharged into the waters of the state and creates, or threatens to create, a condition of pollution or nuisance. Continuing discharges are in violation of the Porter-Cologne Water Quality Control Act and provisions of the Water Quality Control Plan for the North Coast Region (Basin Plan).

13. Beneficial uses of areal groundwater include domestic, irrigation, and industrial supply. Beneficial uses of unnamed tributaries to Mark West Creek, a tributary to the Laguna de Santa Rosa and the Russian River are:

    a. municipal and domestic supply
    b. agricultural supply
    c. industrial process supply
    d. groundwater recharge
    e. navigation
    f. hydropower generation
    g. water contact recreation
    h. non-contact water recreation
    i. commercial and sport fishing
    j. warm freshwater habitat
    k. cold freshwater habitat
    l. wildlife habitat
    m. migration of aquatic organisms
    n. spawning, reproduction, and/or early development.

14. The California Water Code, and regulations and policies developed thereunder require cleanup and abatement of discharges and threatened discharges of waste to the extent feasible. Cleanup and abatement activities are to provide attainment of background levels of water quality, or the highest water quality which is reasonable if background levels of water quality cannot be restored. Alternative cleanup levels greater than background concentration shall be permitted only if the discharger demonstrates that: it is not feasible to attain background levels; the alternative cleanup levels are consistent with the maximum benefit to the people of the State; alternative cleanup levels will not unreasonably affect present and anticipated beneficial uses of such water; and they will not result in water quality less than prescribed in the Basin Plan and Policies adopted by the State and Regional Water Board.

15. Water quality objectives in the Basin Plan are adopted to ensure protection of the beneficial uses of water. The most stringent water quality objectives for protection of all beneficial uses are selected as the protective water quality criteria. Alternative cleanup and abatement actions must evaluate the feasibility of, at a minimum: (1) cleanup to background levels, (2) cleanup to levels attainable through application of best practicable technology, and (3) cleanup to protective water quality criteria levels. The following water quality objectives apply to this Site:

Constituent of Concern	Background Level µg/L	Water Quality Objective µg/L	Reference for Objective
Total Petroleum Hydrocarbons identified as Coleman Fuel	< 50.00	<50.00	No established MCL exists for the petroleum mixture "Coleman Fuel"; therefore the detection limit of 50 ug/l is controlling and applied to the narrative TOXICITY objective in the Basin Plan
Benzene	<0.5	1.0	California DHS MCL, Title 22 of the California Code of Regulations § 64444 is 1.0 µg/L for domestic supply: USEPA health advisory for cancer risk is 0.7 µg/L; applied to narrative TOXICITY objective in the Basin Plan.
Toluene	<0.5	42	California DHS MCL, Title 22 of the California Code of Regulations, § 64444 is 150 µg/L for domestic supply; USEPA taste and odor threshold is 42 µg/L, Federal Register 54 (97):22064-22138; applied to the TASTE AND ODOR water quality objective for domestic supply in the Basin Plan.

Ethylbenzene	<0.5	29	California DHS MCL, Title 22 of the California Code of Regulations, § 64444 is 700 µg/l; USEPA taste and odor threshold is 29 µg/L, Federal Register 54 (97):22064-22138; applied to the TASTE AND ODOR water quality objective for domestic supply in the Basin Plan.
Xylene	<0.5	17	California DHS MCL, Title 22 of the California Code of Regulations, § 64444 is 1750 µg/L for domestic supply; USEPA taste and odor threshold, Federal Register 54 (97):22064-22138 is 17 µg/L; applied to the TASTE AND ODOR water quality objective for domestic supply in the Basin Plan.
Total Petroleum Hydrocarbons as gasoline (TPH-g)	<50.0	50.0	Published literature provides a taste and odor threshold of 5 µg/L which is applied to the narrative TASTE and ODOR objective of the Basin Plan for domestic supply, but detection limit is 50 µg/L and is controlling.
Total Petroleum Hydrocarbons as diesel (TPH-d)	<50.0	56.0	USEPA health advisory of September 4, 1992, Suggested No Adverse Reponse Level of 56 µg/L is applied to narrative TOXICITY water quality objective for domestic supply in the Basin Plan.
Phosphorus			None established.
Iodide			None established.
Chloride			None established.

16. Discharge prohibitions contained in the Basin Plan apply to this site. State Water Resources Control Board Resolution 68-16 applies to this site. State Water Resources Control Board Resolution 92-49 applies to this site and sets out the "Policies and Procedures for Investigation and Cleanup and Abatement of Discharges under Section 13304 of the California Water Code."

17. Reasonable costs incurred by Regional Water Board staff in overseeing cleanup or abatement activities are reimbursable under Section 13304 of the California Water Code.

18. The Regional Water Board will ensure adequate public participation at key steps in the remedial action process, and shall ensure that concurrence with a remedy for cleanup and abatement of the discharges at the site shall comply with the California Environmental Quality Act (at Public Resources Code Section 21000 et seq.; "CEQA").

19. The issuance of this Cleanup and Abatement Order is an enforcement action being taken for the protection of the environment and, therefore, is exempt from the provisions of CEQA in accordance with Section 15308 and 15321, Chapter 3, Title 14 of the California Code of Regulations.

20. Any person affected by this action of the Board may petition the State Water Resources Control Board (State Water Board) to review the action in accordance with Section 13320 of the California Water Code and Title 23, California Code of Regulations, Section 2050. The petition must be received by the State Water Board within 30 days of the date of this Order. Copies of the law and regulations applicable to filing petitions will be provided upon request. In addition to filing a petition with the State Water Board, any person affected by this Order may request the Regional Water Board to reconsider this Order. Such request should be made within 30 days of the date of this Order. Note that even if reconsideration by the Regional Water Board is sought, filing a petition with the State Water Board within the 30-day period is necessary to preserve the petitioner's legal rights. If you choose to appeal the Order, please be advised that you must comply with the Order while your appeal is being considered.

THEREFORE, IT IS HEREBY ORDERED that, pursuant to California Water Code Sections 13267(b) and 13304, the discharger shall cleanup and abate the discharge and threatened discharges forthwith and shall comply with the following provisions of this Order:

1. Conduct all work under the direction of a California registered civil engineer or geologist experienced in soil and groundwater assessment and remediation.

2. Submit within 10 days of the issuance of this Order all names and addresses of neighbors contacted and/or notified of the clandestine drug manufacturing operation.

3. Implement the work plan described in Harding ESE's August 27, 2001 *Site Investigation Report*, Appendix D, consisting of additional work involving removal of impacted gravel and sampling of the concrete ring well within 21 days of the issuance of this Order. Submit a report of findings within 30 days of completion of work.

4. Submit a work plan within 60 days of issuance of this Order to define the complete vertical and horizontal extent of contamination. The scope of work must also include, at a minimum, the following:

   - A proposal for the installation of groundwater monitoring wells.
   - Collection of background soil and groundwater samples.
   - Collection of soil and groundwater samples in the leach field area.

5. The workplan outlined in provision 4 shall include an updated sensitive receptor survey as directed by Regional Water Board staff in a letter dated November 20, 2001.

6. Implement the work plan within 30 days of Executive Officer concurrence with the plan.

7. Submit a report of findings within 60 days of work plan implementation. This report shall include an adequate work plan of any additional effort necessary to define the extent of contamination.

8. If, for any reason, the Discharger is unable to perform any activity or submit any documentation in compliance with the work schedule contained in this order or submitted pursuant to this order and approved by the Executive Officer, the Discharger may request in writing, an extension of time as specified. The extension request must be submitted five days in advance of the due date and shall include justification for this delay including the good faith effort performed to achieve compliance with the due date. The extension request shall also include a proposed time schedule with new performance dates for the due date in question and all subsequent dates dependent on the extension. A written extension may be granted for good cause, in which case the order will be revised accordingly.

Ordered by _____

Susan A. Warner
Executive Officer

November 20, 2001

(CSH:dc\drug lab cao 2.doc)